



PTO/SB/08a (08-03)

Approved for use through 07/31/2008. OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/057,859
				Filing Date	January 24, 2002
				First Named Inventor	Victor F. Petrenko
				Art Unit	3742
				Examiner Name	Leonid Fastovsky
Sheet	1	of	6	Attorney Docket Number	388506

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
LMF		1,157,344	10-19-1915	E. Thomson	
		1,656,329	01-17-1928	E. G. Sievert et al	
		2,496,279	02-07-1950	Ely, et al.	
		2,870,311	01-20-1959	Greenfield	
		3,204,084	05-07-1963	J.G. Spencer, Jr.	
		3,316,344	04-25-1967	Kidd, et al.	
		3,316,345	04-25-1967	Toms, et al.	
		3,526,920	06-21-1966	Byers	
		3,790,752	02-05-1974	Boaz et al	
		3,825,371	07-23-1974	Roder, et al.	
		3,835,269	09-01-1974	Levin, et al.	
		3,915,883	10-01-1975	VanMeter, et al.	
		3,971,056	07-01-1976	Jaskolski, et al.	
		4,054,672	10-01-1977	Inoue, et al.	
		4,082,962	04-01-1978	Burgsdorf, et al.	
		4,085,338	04-01-1978	Genrikh, et al.	
		4,137,447	01-30-1979	Boaz	
		4,190,137	02-26-1980	Shimada, et al.	
		4,278,875	07-14-1981	Bain	
		4,296,298	10-20-1981	Macmaster, et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
LMF		SU26363	Aug-31	Unknown		
		SU587548	Jan-78	Dostman, et al.		
		SU936040	6/15/1982	Unknown		
		CN1079578		Unknown		
		EP1168888	1/2/2002	Nippon Sheet Glass Co. Ltd.		
		GB2259287	3/10/1993	Golls Royce		
		FR2570333	3/21/1986	Mendola		
		JP5292638	Nov-93	Unknown		
LMF		JP7023520	Jan-95	Unknown		

Examiner Signature	<i>Fastovsky</i>	Date Considered	10/12/04
-----------------------	------------------	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08a (08-03)

Approved for use through 07/31/2008. OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute form 1449A/PTO				Complete if Known	
				Application Number	10/057,859
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Filing Date	January 24, 2002
				First Named Inventor	Victor F. Petrenko
				Art Unit	3742
				Examiner Name	Leonid M. Fastovsky
				Attorney Docket Number	388506
Sheet	2	of	6		

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (If known)			
LMF		4,321,296	03-23-1982	Rougier	
		4,330,702	05-01-1982	Cheng	
		4,330,703	05-18-1992	Horsma, et al.	
		4,376,598	03-01-1983	Brouns, et al.	
		4,638,960	01-27-1987	Straube, et al.	
		4,651,825	03-01-1987	Wilson	
		4,690,353	09-01-1987	Haslim, et al.	
		4,732,351	03-22-1988	Bird	
		4,737,618	04-12-1988	Barbier, et al.	
		4,760,978	08-02-1988	Schuyler, et al.	
		4,773,976	09-27-1988	Vexler	
		4,814,546	03-01-1989	Whitney, et al.	
		4,875,644	10-01-1989	Adams, et al.	
		4,887,041	12-01-1989	Mashikian, et al.	
		4,897,597	01-30-1990	Whitener	
		4,950,950	08-01-1990	Perry, et al.	
		4,974,503	12-01-1990	Koch	
		4,985,313	01-15-1991	Penneck et al	
		5,109,140	04-01-1992	Nguyen	
	LMF		5,112,449	05-01-1992	Jozefowicz, et al.

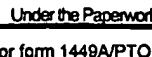
FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
LMF		JP11041768	2/12/1999	Fujikura Ltd.		
		JP57060684	4/12/1982	Unknown		
		GB2 252 285 A	8/15/1992	British Aerospace Public Limited Company		
		DE44 40 634	7/25/1996	Gustin		
		WO 94/20819	9/15/1994	Innovative Dynamics, Inc.		
LMF		WO 95/30495	11/16/1995	Donnelly Corporation		

Examiner Signature	<i>L Fastovsky</i>	Date Considered	10/12/04
-----------------------	--------------------	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



(Use as many sheets as necessary)

Sheet	3	of	6
-------	---	----	---

Complete if Known

Application Number	10/057,859
Filing Date	January 24, 2002
First Named Inventor	Victor F. Petrenko
Art Unit	3742
Examiner Name	Leonid Fastovsky
Attorney Docket Number	388506

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
LME		5,142,325	09-01-1992	Zieve, et al.	
		5,144,962	09-08-1992	Counts et al	
		5,172,024	12-15-1992	Broussoux, et al.	
		5,218,472	06-01-1993	Jozefowicz, et al.	
		5,330,291	07-01-1994	Heath, et al.	
		5,344,696	09-06-1994	Hastings et al	
		5,398,547	03-21-1995	Gerardi, et al.	
		5,411,121	05-01-1995	La Forte, et al.	
		5,441,305	08-15-1995	Tabar	
		5,496,989	03-05-1996	Bradford et al	
		5,511,288	09-03-1996	Geraldi, et al.	
		5,523,959	06-01-1996	Seegmüller	
		5,551,288	09-03-1996	Geraldi, et al.	
		5,555,736	09-17-1996	Wills, et al	
		5,586,213	12-01-1996	Bridges, et al.	
		5,630,360	05-01-1997	Polny Jr.	
		5,744,704	04-01-1998	Hu, et al.	
LME		5,861,855	01-01-1999	Arsenault, et al.	
		5,873,254	02-01-1999	Arav.	
		5,902,962	11-01-1999	Gazdzinski	

FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner
Signature**

Flatorsky

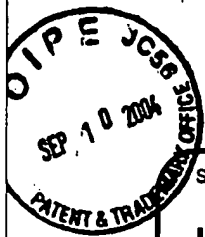
**Date
Considered**

10/12/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

This collection of Information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08a (08-03)

Approved for use through 07/31/2008. OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 4 of 6

Complete if Known

Application Number	10/057,859
Filing Date	January 24, 2002
First Named Inventor	Victor F. Petrenko
Art Unit	3742
Examiner Name	Leonid Fastovsky
Attorney Docket Number	388506

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
LMF		5,947,418	09-07-1999	Bessiere, et al.	
		6,018,152	01-25-2000	Allaire, et al.	
		6,027,075	02-22-2000	Petrenko	
		6,031,214	02-29-2000	Bost, et al.	
		6,102,333	08-01-2000	Gerardi, et al.	
		6,129,314	10-10-2000	Giamati, et al.	
		6,134,096	10-01-2000	Yamada, et al.	
		6,145,787	11-14-2000	Rolls	
		6,218,647	04-01-2001	Jones, et al.	
		6,239,601	05-01-2001	Weinstein	
		6,270,188	08-01-2001	Ichikawa	
		6,330,986	12-18-2001	Rutherford et al	
		6,370,004	04-01-2002	Yamaguchi	
		6,396,172	05-01-2002	Couture	
		6,427,946	08-06-2002	Petrenko	
		6,478,259	11-01-2002	Cordaro	
		6,492,629	12-01-2002	Sopory	
		6,550,508	04-01-2003	Yamaguchi, et al.	
		6,570,333	05-01-2003	Miller, et al.	
		6,576,115	06-01-2003	Petrenko	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				

Examiner Signature	<i>Fastovsky</i>	Date Considered	10/12/04
-----------------------	------------------	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	5	of	6
-------	---	----	---

Complete if Known

Application Number	10/057,859
Filing Date	January 24, 2002
First Named Inventor	Victor F. Petrenko
Art Unit	3742
Examiner Name	Leonid Fastovsky
Attorney Docket Number	388506

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner Signature	<i>Flattorsky</i>	Date Considered	10/12/04
-----------------------	-------------------	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08b(08-03)

Approved for use through 07/31/2006. OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1448B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 6 of 6

Complete if Known

Application Number	10/057,859
Filing Date	January 24, 2002
First Named Inventor	Victor F. Petrenko
Art Unit	3742
Examiner Name	Leonid Fastovsky
Attorney Docket Number	388506

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
LMF		"Icing Wind Tunnel", Meeting the Challenges of Ice Testing In a World-Class Facility - BF Goodrich Aerospace Ice Protection Systems, 4 pages	
		"New Goodrich Wind Tunnel Tests Advanced Aircraft De-Icing Systems", by Edward H. Phillips, Uniontown, Ohio, Aviation Week Magazine, Oct. 3, 1998, 3 pages.	
		"The Evolution of Ice Protection Creates a Revolution Ice Detection", BFGoodrich Aerospace Ice Protection Systems, 2 pages, No date.	
		AIA 94-0714, "Interface Influences Upon Ice Adhesion to Airfoil Materials", by A. Reich, BF Goodrich Aerospace/De-Icing Systems, Brecksville/Uniontown, OH (32nd Aerospace Sciences Meeting and Exhibit, January 10-13, 1994) pages 1-8	
		Brecksville/Uniontown, OH (32.sup.nd Aerospace Sciences Meeting and Exhibit Jan. 10-13, 1994), pp. 1-8.	
		Electromechanical Phenomena in Ice; Victor F. Petrenko; Thayer School of Engineering Special Report 96-2; Feb. 1996.	
		Generation of electric fields by ice and snow friction, by Victor F. Petrenko and Smauel C. Colbeck, (May 1, 1995), pp. 4518-4521.	
		Generation of electric fields by ice and snow friction; Victor F. Petrenko; J. Appl. Phys. 77 (9), May 1, 1995; 1995 American Institute of Physics	
		Khusnatdinov N N et al: "Electrical Properties Of The Ice/Solid Interface" Journal Of Phusical Chemistry. B, Materials, Surfaces, Interfaces And Biophysical, Washington, D.C. US Vol. 101, 07-17-1997, pages 6212-6214	
LMF		The effect of static electric fields on ice friction; Victor F. Petrenko; J. Appl. Phys. 76 (2), Jul. 15, 1994; 1994 American Institute of Physics.	

Examiner
SignatureDate
Considered

10/12/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.